02-06-0

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of Brian Ward et al.

Art Unit 1637

Serial No. 10/002,292 Confirmation No. 2146

Filed November 15, 2001

RECOMBINANT DNA PROCESS USING dNTP MIXTURE CONTAINING MODIFIED

NUCLEOTIDES

Examiner Kenneth R. Horlick

February 5, 2004

COMMISSIONER FOR PATENTS P.O. BOX 1450 ALEXANDRIA, VIRGINIA 22313-1450

SIR:

LETTER TO THE PATENT AND TRADEMARK OFFICE REGARDING INFORMATION DISCLOSURE STATEMENT

On August 15, 2002, applicants submitted copies of references 34-48, originally cited in the Information Disclosure Statement filed with the Patent and Trademark Office on February 15, 2002.

On February 4, 2004, the undersigned received a call from Examiner Horlick advising that he was unable to locate these fifteen references. Per Examiner Horlick's suggestion, applicants are submitting copies of the documents, including the fifteen references, originally provided to the Office on August 15, 2002.

Accordingly, enclosed herewith is a copy of the Letter to the Commissioner dated August 15. 2002, copies of the Information Disclosure Statement and of references 34-48 submitted therewith, a copy of the stamped Post Card indicating the Office's receipt of the August 15, 2002, mailing, and a copy of the Express Mail Label attached to the August 15, 2002, mailing.

Respectfully submitted,

Timothy B. McBride, Reg. No. 47,781

SENNIGER, POWERS, LEAVITT & ROEDEL

One Metropolitan Square, 16th Floor

St. Louis, Missouri 63102

(314) 231-5400

TBM/sxm

* Enclosures

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of Brian Ward et al.

Serial No. 10/002,292

Filed November 15, 2001

For RECOMBINANT DNA PROCESS USING DNTP MIXTURE CONTAINING MODIFIED NUCLEOTIDES

August 15, 2002

TO THE COMMISSIONER OF PATENTS AND TRADEMARKS,

SIR:

LETTER TO THE PATENT AND TRADEMARK OFFICE REGARDING INFORMATION DISCLOSURE STATEMENT

On February 15, 2002, applicants submitted an Information Disclosure Statement listing 48 references. Applicants, however, did not have a copy of 15 of these references (references 34-48) available to submit with the Information Disclosure Statement at that time. Applicants now have obtained and have enclosed a copy of the missing references and a copy of the Information Disclosure Statement already submitted with this letter.

Respectfully submitted,

Debra D. Nye, Reg. No. 48,260

SENNIGER, POWERS, LEAVITT & ROEDEL

One Metropolitan Square, 16th Floor

St. Louis, Missouri 63102

(314) 231-5400

DDN/sxm

*Attachments

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| INFORMATION DISCLOSURE | Application Number | 10/002,292 | |
| STATEMENT BY APPLICANT | Filing Date | November 15, 2001 | |
| (use as many sheets as necessary) | Confirmation Number | | |
| OIPE | First Named Inventor | Brian Ward, et al. | |
| \$C105 | Group Art Unit | | |
| FEB 0 5 2004 | Examiner Name | | |
| Sheet RADEMARK of 4 | Attorney Docket No. | SGM 6938.1 | |

| U.S. PATENT DOCUMENTS | | | | | |
|-----------------------|--------------|----------------------|--|--|--|
| | | U.S. Patent Document | | | , |
| Examiner Initials* | Cite No.1 | . Number | Kind Code ² (if known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY |
| | 1 | 6,140,086 | | Fox, et al. | 10-31-2000 |
| - | 2 | 5,856,144 | | Mierendorf, et al. | 01-05-1999 |
| | 3 | 5,744,306 | | Murtagh, Jr., et al | 04-28-1998 |
| | 4 | 5,683,869 | | Shaw, et al. | 11-04-1997 |
| | 5 | 5,688,669 | | Murtagh | 11-18-1997 |
| | 6 | 5,659,027 | | Spielvogel, et al. | 08-19-1997 |
| | 7 | 5,604,098 | | Mead, et al. | 02-18-1997 |
| | 8 | 5,595,895 | | Miki, et al. | 01-21-1997 |
| | 9 | 5,594,115 | | Sharma | 01-14-1997 |
| | 10 | 5,580,759 | | Yang, et al. | 12-03-1996 |
| | 11 | 5,523,221 | | Weiner | 06-04-1996 |
| | 12 | 5,518,900 | | Nikiforov, et al. | 05-21-1996 |
| | 13 | 5,518,901 | | Murtagh | 05-21-1996 |
| | 14 | 5,487,993 | | Herrnstadt, et al. | 01-30-1996 |
| | 15 | 5,284,933 | | Dobeli, et al. | 02-08-1994 |

| Date | |
|------------|--------------------|
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| | Date Considered |

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ³Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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| (2004 H | Group Art Unit | |
| FEB 0 5 2004 33 | Examiner Name | |
| Sheet RADE of 4 | Attorney Docket No. | SGM 6938.1 |

| 16 | 5,310,663 | Dobeli, et al. | 05-10-1994 |
|--------|-----------|--------------------|------------|
| 17 | 5,260,427 | Spielvogel, et al. | 11-09-1993 |
| 18 | 5,075,227 | Hagen | 12-24-1991 |
| 19 | 4,851,341 | Hopp, et al. | 07-25-1989 |
| 20 | 4,800,159 | Mullis, et al. | 01-24-1989 |
| 21 | 4,683,195 | Mullis, et al. | 07-28-1987 |
| 22 | 4,683,202 | Mullis | 07-28-1987 |
| 23 | 4,682,195 | Yilmaz | 07-21-1987 |
| 24 | 4,569,794 | Smith, et al. | 02-11-1986 |
| 25 | 4,532,207 | Brewer, et al. | 07-30-1985 |
| 26 | 4,521,509 | Benkovic, et al. | 06-04-1985 |

FOREIGN PATENT DOCUMENTS

| | | OTHER ART - NON PATENT LITERATURE DOCUMENTS | |
|-----------------------|--------------|--|----------------|
| Examiner Initials* | Cite No.1 | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ⁶ |
| | 27 | OKADA, ET AL., Efficient directional cloning of recombinant adenovirus vectors using DNA-protein complex, Nucleic Acids Research, 1998, 26(8):1947-1950 | |
| | 28 | WONG, ET AL., A novel method for producing partial restriction digestion of DNA fragments by PCR with 5-methyl-CTP, Nucleic Acids Research, 1997, 25(20):4169-4171 | |

| Examiner | Date | |
|-----------|------------|--|
| Signature | Considered | |

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¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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| | LIGHT O. E. Line and Line and Line and From dispersional publication of DCD products. Aluminis Acids | |
|--------|---|---|
| 29 | HSIAO, Exonuclease III induced ligase-free directional subcloning of PCR products, Nucleic Acids Research, 1993, 21(23):5528-5529 | |
| 30 | MEAD, ET AL., A universal method for the direct cloning of PCR amplified nucleic acid, Bio/Technology, 1991, 9:657-663 | |
| 31 | MARCHUK, ET AL., Construction of T-vectors, a rapid and general system for direct cloning of unmodified PCR products, Nucleic Acids Research, 19(5):1154 | |
| 32 | HOLTON, ET AL., A simple and efficient method for direct cloning of PCR products using ddT-tailed vectors, Nucleic Acids Research, 1990, 19(5):1156 | |
| 33 | PUTNEY, ET AL., A DNA fragment with an α-phosphorothioate nucleotide at one end is asymmetrically blocked from digestion by exonuclease III and can be replicated <i>in vivo</i> , 1981, 75(12):7350-7354 | |
| 34 | PELHAM, ET AL., Eur. J. Biochem, 1976, 67:247 | • |
| 35 | UHLEN, ET AL., Gene, 1983, 23:369 | |
| 36 | SASSENFELD, ET AL., Bio Technology, 1984, 2:76 | |
| 37 | MELTON, ET AL., Nucleic Acid Res., 1984, 12:7035 | |
| 38 | EVAN, ET AL., Mol. Cell. Biol., 1985, 5:3610-3616 | |
| 39 | LABEIT, ET AL., A new method of DNA sequencing using deoxynocleoside alpha-thiotriphosphates, DNA, 1986, 5(2):173-177 | |
| 40 | DYATKINA, ET AL., Terminating substrates of DNA polymerases: synthesis and functional study, Nucleic Acids Symp. Ser., 1987, 18:117-120 | |
| 41 | LABEIT, ET AL., Meth. Enzymol., 1987, 155:166 | |
| 42 | NAKAMAYE, ET AL., Direct sequencing of polymerase chain reaction amplified DNA fragments through the incorporation of deoxynucleoside alpha-thiotriphosphates, Nucl. Acids Res., 1988, 16(21):9947-9959 | F |

| Examiner | Date | |
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| STATEMENT BY APPLICANT | | | | Filing Date | November 15, 2001 | |
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| | THE AND | <i>y</i> | | Examiner Name | | |
| Sheet | 4 ADEMARK | of | 4 | Attorney Docket No. | SGM 6938.1 | |

| 43 | HOPP, ET AL., Biotechnology, 1988, 6:1204 |
|----|---|
| 44 | SMITH, ET AL., Gene, 1988, 67:31 |
| 45 | SAIKI, ET AL., Science, 1988, 239:487-491 |
| 46 | PRICKETT, ET AL., Bio Techniques, 1989, 7:580 |
| 47 | KOLODZIEJ, ET AL., Methods Enzymol., 1991, 194:508-519 |
| 48 | KALUZ, ET AL., Nucleic Acids Research, 1992, 20:4369-4370 |

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(390)Inventor(s) or Mark B. WARD & Serial No. 10/002,292 Patent/Reg. No. The following has been received by the U.S. Patent and Trademark Office on the date stamped hereon: ☐ Amendment ☐ Fee Transmittal Form ☐ Preliminary Amendment ☐ Combined Declaration/Power of Attorney ☐ Response to Missing Parts Notice ☐ Notice of Appeal ☐ Assignment and Cover Shee ☐ Status Inquiry \□ IDS, PTO/SB/08A, Reference(s) . Check \$ Sheet(s) of Formal Drawing(s) Letter to Commissioner Letter to Official Draftsman ☐ RCE Transmittal Issue Fee/PTO-85b/Certificate of Mailing ☐ Publication Fee ☐ Maintenance Fee ☐ Statement of Use ☐ Section ☐ Extension of Time to Oppose